AMENDMENTS TO THE CLAIMS

Listing of the Claims:

Claims 1-51 (canceled).

52. (previously presented) A process for cell traced based testing of biological cells wherein said testing identifies at least one property of said cells, wherein the cells to be tested are applied to a substrate, which is at least partially structured and/or surface modified, and move adhesively over the surface track regions of the substrate while producing cell traces, wherein the cell traces consist of material residues separated from the cells as the cells move over the surface track regions and wherein said cell traces are analysed to identify a property of said cells.

53. (previously presented) The process according to claim 52, wherein the amount, the geometry, the chemical composition, the passive electrical parameters, and/or the mechanical properties of the cell traces or of their components are detected for the cell testing.

54. (previously presented) The process according to claim 53, wherein filaments and membrane patches are detected to determine the quantity and geometry of the cell traces.

55. (currently amended) The process according to claim 53, wherein, to detect the composition of the cell traces, ~~they~~ the cell traces are subjected to staining or marking for the performance of microanalytic processes.

56. (previously presented) The process according to claim 55, wherein the microanalytic processes comprise fluorescence measurements, measurements on the basis of isotope markings, or elemental analysis.

57. (currently amended) The process according to claim 53, wherein, to detect the composition of the cell traces, ~~they~~ the cell traces are subjected to enzymatic decomposition.

58. (previously presented) The process according to claim 53, wherein the cell traces are tested with a high-resolution microscopy process.

59. (previously presented) The process according to claim 53, wherein cytoplasmic residues or genetic materials are detected in the cell traces.

60. (previously presented) The process according to claim 53, wherein the stability of the cell traces during mechanical, electrical, acoustic, optical, and/or chemical treatments is detected.

61. (currently amended) The process according to claim 53, wherein, to determine the passive electrical parameters of the cell traces, ~~their~~ the impedance, breakthrough resistance, non-linear behaviour, and/or heating during current flow of the cell traces are detected.

62. (currently amended) The process according to claim 53, wherein, to determine mechanical properties of the cell traces, ~~their~~ the elasticity or plasticity of the cell traces is detected.

63. (previously presented) The process according to claim 52, wherein a duplication of components of the cell traces is performed to produce reference material.

64. (previously presented) The process according to claim 52, wherein the cell traces are produced in predetermined surface track regions, which are at least partially microstructured and/or modified for amplified adhesion of the cells.

65. (previously presented) The process according to claim 52, wherein the cells are subjected, after the production of the cell traces, to a medical or measurement technology application, cryopreservation, or further cultivation.

66. (previously presented) The process according to claim 52, wherein multiple cell traces are produced and tested on multiple parallel tracks.

67. (previously presented) The process according to claim 52, wherein cell traces are produced on intersecting tracks and the mutual interactions of the participating cells and/or cell traces are tested at intersection regions of the intersecting tracks.

68. (previously presented) A device for cell trace based testing of biological cells comprising a substrate having surface regions and surface track regions, wherein said cells adhere more poorly on the surface regions than on surface track regions, and wherein the surface track regions are arranged for the adhesion of cell traces consisting of material residues separated from the cells.

69. (previously presented) The device according to claim 68, wherein the substrate is structurally and/or chemically modified in the surface regions and/or the surface track regions, in order to suppress and/or encourage the adhesion of cell traces.

70. (previously presented) The device according to claim 68, wherein the substrate is part of a microsystem on which the surface regions and the surface track regions are implemented, with the surface track regions forming at least one straight track.

71. (previously presented) The device according to claim 68, wherein the substrate consists of glass, silicon, or a plastic.

72. (previously presented) The device according to claim 68, wherein multiple surface track regions in the form of a group of parallel tracks or intersecting tracks are formed.

73. (previously presented) The device according to claim 68, wherein the substrate is in two parts, with the surface track regions located on one of the substrate parts.

74. (previously presented) A process for cell trace based cultivation of biological cells, in which the cells are applied to an at least partially structured and/or surface modified substrate and move adhesively over the surface of the substrate while producing cell traces, wherein the cell traces consist of material residues separated from the cells, and cultivation of the same or a different type of cells is performed on the cell traces.

75. (currently amended) The process according to claim 74, wherein the biological cells are tissue producing cells and the substrate comprises an ~~implant~~ material to be implanted in the human body.

76. (previously presented) A process of testing of the properties of cells for medical, biochemical, and/or pharmacological purposes, or for biocompatible modification of the surfaces

of implant materials, by using material residues, which are formed by biological cells as cell traces on substrates.

77. (previously presented) A process for the manipulation of biological cells, in which the cells are applied to a substrate, which is at least partially structured and/or surface modified, and move adhesively over surface track regions of the substrate while producing cell traces, wherein the cell traces consist of material residues separated from the cells which contain genetic materials of the cells, and the genetic materials are subjected to amplification and the amplified genetic material is subjected to a genetic analysis.